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TM-(L)-705/025/01

TECHNICAL MEMORANDUM

(TM Series)

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SCF Computer Program Systems Manual

Utility Programs

Symbolic Dump Routine (SYMDUMP)

by

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Approved
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21 March 1963

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SUBROUTINE IDENTIFICATION

A. Title: Symbolic Dump Routine (SYMDUMP)

B. Programmed and Documented: 14 July 1962
F. J. LaChapelle, System Development Corporation

C. Revised: 14 February 1963, Documented: 21 March 1963,
R. L. Kinkead, System Development Corporation

PURPOSE

To provide octal, symbolic, floating point decimal, or BCD dumps of COP routines using their names to define the areas in core to be dumped.

USAGE

A. Calling Sequence

```
L       RTJ     SYMDUMP
L+1     Normal Return
        ZRO   N
L+2     BCD   1XXXXXXXX
L+3     DEC   T
L+4     BCD   1PROG1
L+5     BCD   1PROG2
 .       .       .
 .       .       .
 .       .       .
L+K     BCD   1PROG(LAST)
```

Where:

N = The total number of parameters

T = The logical tape or printer to write dump on ($2 \leq T \leq 13$).

PROG1 ... PROG(LAST) = The names of the specific routines to dump, (left adjusted with training blanks).

B. The Parameter XXXXXXXX is optional and if it is present, the result will be that the routines will be dumped in the specified format. The possible values of XXXXXXXX are:

1. SYMBOLIC - mnemonic format,
2. FLOATDEC - floating point decimal format, and
3. BCD - BCD format.

If absent, the dump will be in octal.

C. When called by a function card:

* SYMDUMP XXXXXXXX T PROG1 . . . PROG(LAST)

where all parameters are defined as above with XXXXXXXX again optional.

RESTRICTIONS

A. SYMDUMP uses the TTTT table, LCOUNT, and LNAMES.

B. SYMDUMP uses the subroutine CORE, (TM-(L)-705/022/01).

C. A page eject follows the dump of each program and no end of file is written following a dump.

D. A maximum of twenty routines may be dumped with one call to SYMDUMP.

E. Only those routines defined previously by a DEFINES card or those routines which have been loaded by MTCII at execution time may be dumped by SYMDUMP.

F. It is possible to call six selected areas of core by six special names. These areas and their mnemonics are: COMMON (06743_8 - 07106_8), POOL (04700_8 - 07106_8), COP (00000_8 - 07777_8 and 70000_8 -

77777_8), ZEROTEN (00000_8 - 00010_8), INOUT (00000_8 - 07777_8), and ALLCOP (00000_8 - 07777_8 and 70000_8 - 77777_8). Note that COP and ALLCOP are the same areas and consist of two separate parts. INOUT is everything below 10000_8 since the I/O routines and buffers are scattered throughout this area.

G. If a routine is requested which is not a special name or has not been loaded or defined, a one-line record to this effect is written on the output tape. The normal dumping of the remaining routines then resumes.

H. If an absolute program is requested, a dump beginning with the first cell of the program and extending through 76432_8 is made.

I. If the logical tape is illegal, a normal return is made with no error message.

J. Output is called into core by CORE using the ADDROF feature in MTCII if FLOATDEC or BCD formats are selected.

TIMING

SYMDUMP takes a maximum of one minute to dump "32K" core.

STORAGE

233_8 cells total
121_8 cells are instructions cells.
15_8 cells for a table defining the special areas of core.
25_8 cells contain messages.
15_8 cells are constants.
33_8 cells are temporary storage

REFERENCES

A. "1604 Systems Manual", Lockheed Missiles and Space Division LMSC - 44758, 1 January 1962, P. 50.12.01.

B. "Utility Program Descriptions, Milestone 11, Symbolic Dump Routine (SYMDUMP)", System Development Corporation, TM-(L)-715/019/01.

C. Computer Program Library Catalog No. 75048.

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